What is claimed is:

1. In a cooling and heating system including a compressor for compressing refrigerant to a high temperature and pressure state, an indoor unit installed in the indoor for cooling an indoor air by heat-exchanging a low temperature expanded refrigerant with an indoor air in the cooling mode and for heating an indoor air by heat-exchanging a high temperature and pressure refrigerant with an indoor air in the heating mode, an outdoor unit installed in the outdoor for discharging heat into the air by heat-exchanging a high temperature and pressure refrigerant with an external air in the cooling mode and for heating a refrigerant by heat-exchanging the expanded refrigerant with an external air in the heating mode, and a heat exchange unit for heat-exchanging a high temperature refrigerant from the indoor unit with a low temperature refrigerant from the outdoor unit in the heating mode, a combined regeneration cooling and heating system that is characterized in that a heat exchanger capable of heat-exchanging a high temperature refrigerant from the indoor unit with a refrigerant inputted into the outdoor unit, and an expansion unit adapted to receive a refrigerant of the heat exchanger and to expand for cooling the refrigerant are installed in the interior of the heat exchange unit; and a high temperature refrigerant from the indoor unit and a low temperature refrigerant from the outdoor unit are inputted into the heat exchange unit in the heating mode; and the high temperature refrigerant flows through the heat exchanger and the expansion unit and is heat-exchanged with the low temperature refrigerant.

2. The system of claim 1, wherein said heat exchanger is a heat exchanger of a double capillary tube method.

3. The system of claim 1, wherein more than at least one heat exchanger is installed between the heat exchange unit and the outdoor unit so that a refrigerant expanded by the expansion unit and a refrigerant discharged from the outdoor unit are heat-exchanged in the heating mode.

4. The system of claim 1, wherein more than at least one movement prevention protrusion (turbulence generation panel) is formed in the interior of the heat exchange unit so that a refrigerant from the outdoor unit is properly heat-exchanged.

5. The system of claim 1, further comprising a first refrigerant supply line between the indoor unit and the heat exchange unit for directly supplying a high temperature refrigerant from the indoor unto the outdoor unit and for controlling the same.

6. The system of claim 1, further comprising:

a temperature sensor for checking a temperature of refrigerant from the

compressor and comparing whether the temperature of the refrigerant checked is an over-compressed refrigerant temperature or not;

a second refrigerant supply line for directly supplying a low temperature refrigerant from the outdoor unit to the compressor in accordance with a signal of the temperature sensor in the case that the checked temperature is an over compressed refrigerant temperature; and

a refrigerant adjusting valve for controlling the amount of the refrigerant inputted into the refrigerant supply line.

7. The system of claim 1, wherein in said heat exchange unit, a first heat exchanger, a second heat exchanger and an expansion unit are sequentially installed, and a high temperature refrigerant from the indoor unit is inputted into the outdoor unit sequentially through the first heat exchanger, the second heat exchanger and the expansion unit in the heating mode, and a low temperature refrigerant from the outdoor unit is sequentially inputted into the second heat exchanger, the first expansion unit and the first heat exchanger, so that the high temperature refrigerant and the low temperature refrigerant are heat-exchanged.

8. The system of claim 7, wherein a first refrigerant supply line is installed between the expansion unit and the second heat exchanger for directly supplying a high temperature refrigerant, passed through the expansion unit, to the

compressor.

9. The system of claim 7, wherein a first refrigerant supply line is installed between the second heat exchanger and the first heat exchanger for directly supplying a high temperature refrigerant, passed through the second heat exchanger, to the compressor.